

# DCHS2 (N-16): sc-164157

## BACKGROUND

The cadherins are a family of Ca<sup>2+</sup>-dependent adhesion molecules that function to mediate cell-cell binding critical to the maintenance of structure and morphogenesis. Cadherins each contain a large extracellular domain at the N-terminus, which is characterized by a series of five homologous repeats, the most distal of which is thought to be responsible for binding specificity. DCHS2 (dachous 2), also known as CDH27, CDHJ, PCDH23, PCDHJ or FLJ20047, is a 2,916 amino acid single-pass membrane protein that contains 22 cadherin domains and belongs to the cadherin superfamily. DCHS2 is present at high levels in cerebral cortex and testis and is expressed as three isoforms produced by alternative splicing events. The gene that encodes DCHS2 maps to human chromosome 4, which represents approximately 6% of the human genome and contains nearly 900 genes.

## REFERENCES

1. Matsuyoshi, N. and Imamura, S. 1997. Multiple cadherins are expressed in human fibroblasts. *Biochem. Biophys. Res. Commun.* 235: 355-358.
2. Matsuyoshi, N., Tanaka, T., Toda, K. and Imamura, S. 1997. Identification of novel cadherins expressed in human melanoma cells. *J. Invest. Dermatol.* 108: 908-913.
3. Nollet, F., Kools, P. and van Roy, F. 2000. Phylogenetic analysis of the cadherin superfamily allows identification of six major subfamilies besides several solitary members. *J. Mol. Biol.* 299: 551-572.
4. Nakajima, D., Nakayama, M., Kikuno, R., Hirotsawa, M., Nagase, T. and Ohara, O. 2001. Identification of three novel non-classical cadherin genes through comprehensive analysis of large cDNAs. *Brain Res. Mol. Brain Res.* 94: 85-95.
5. Höng, J.C., Ivanov, N.V., Hodor, P., Xia, M., Wei, N., Blevins, R., Gerhold, D., Borodovsky, M. and Liu, Y. 2004. Identification of new human cadherin genes using a combination of protein motif search and gene finding methods. *J. Mol. Biol.* 337: 307-317.
6. Junghans, D., Haas, I.G. and Kemler, R. 2005. Mammalian cadherins and protocadherins: about cell death, synapses and processing. *Curr. Opin. Cell Biol.* 17: 446-452.
7. Kimura, K., Wakamatsu, A., Suzuki, Y., Ota, T., Nishikawa, T., Yamashita, R., Yamamoto, J., Sekine, M., Tsuritani, K., Wakaguri, H., Ishii, S., Sugiyama, T., Saito, K., Isono, Y., Irie, R., Kushida, N., Yoneyama, T., et al. 2006. Diversification of transcriptional modulation: large-scale identification and characterization of putative alternative promoters of human genes. *Genome Res.* 16: 55-65.

## CHROMOSOMAL LOCATION

Genetic locus: DCHS2 (human) mapping to 4q31.3; Dchs2 (mouse) mapping to 3 E3.

## SOURCE

DCHS2 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of DCHS2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-164157 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

DCHS2 (N-16) is recommended for detection of DCHS2 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with DCHS1.

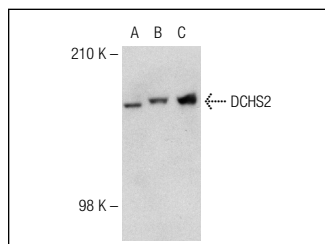
DCHS2 (N-16) is also recommended for detection of DCHS2 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for DCHS2 siRNA (h): sc-88994, DCHS2 siRNA (m): sc-142897, DCHS2 shRNA Plasmid (h): sc-88994-SH, DCHS2 shRNA Plasmid (m): sc-142897-SH, DCHS2 shRNA (h) Lentiviral Particles: sc-88994-V and DCHS2 shRNA (m) Lentiviral Particles: sc-142897-V.

Molecular Weight of DCHS2 isoforms: 322/149/106 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, F9 cell lysate: sc-2245 or U-2 OS cell lysate: sc-2295.

## DATA



DCHS2 (N-16): sc-164157. Western blot analysis of DCHS2 expression in F9 (A), U-2 OS (B) and HeLa (C) whole cell lysates.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.